

POCKET GUN REST

Technical Field

The present invention relates to versatile gun rests, and more particularly to
5 gun rest that are compact and readily adjustable, and methods of using the same.

Background of the Invention

The use of a gun rest to improve a shooter's accuracy is well known.

Traditionally, gun rests have been heavy, cumbersome devices which yield great accuracy
10 but are difficult for a sportsman to carry into the field. More recently, there has been the introduction of devices that provide the necessary stabilization without some of the bulk of the traditional devices.

United States Patent No. 5,332,185 describes a gun rest which consists of a central compartment and two side compartments, wherein the central compartment is
15 configured to provide a U-shaped cradle for the forearm of a firearm. The two side compartments hang over the edge of a supporting surface to provide stability to the gun rest. Further, the compartments of this rest are intended to be filled with a substance such as sand. For this reason, this gun rest includes a sandbag. While the gun rest described in this patent is less cumbersome than traditional gun rests it is still difficult for a sportsman to
20 carry it into the field due to the weight associated with the sand.

United States Patent No. Des. 324,530 describes a combined gun and camera rest which consists of two attached panels, wherein the panels can be opened to form a V-shape. The distance between unattached end of the panels can be maintained by a strap-like device. The attached ends of the panels contain a U-shaped recess for accepting the forearm
25 of a firearm. This gun rest may be manufactured to be very lightweight and compact in size but it is not readily height adjustable. Additionally, this gun rest is limited in its maximum height by the length of the attached panels. This gun rest is impractical to the sportsman in the field because it would necessitate the sportsman to attain a prone firing position, which is often a disadvantageous position in the field.

United States Patent No. 6,158,159 describes a gun sighting rest which consists of a support body containing a U-shaped recess in its top surface for receiving the forearm of a firearm. Elevation control is obtained by placing the front edge of the support body into a recess on an elevation wedge. This gun rest may be manufactured from
30 lightweight material but suffers from the disadvantages of being of two-piece construction as well as not being readily height adjustable. While this rest would provide useful service to a shooter utilizing a shooting bench or table it is impractical for the sportsman to use in the field.

United States Patent No. 5, 845,427 describes a portable gun rest which consists of a base attached to an elevating arm, wherein the elevating arm is attached by a hinge at one end to the base with the other end of the elevating arm being freely adjustable. As the free end of the elevating arm is raised its elevation may be maintained by the use of a
5 rod between the base and elevating arm. While this gun rest is quickly and easily adjustable its maximum elevation is limited by the length of the elevating arm. Unless the sportsmen wishes to carry a gun rest equal to his body height this gun rest is not practical for use in the field, as it would restrict the sportsmen to either a prone or kneeling position.

United States Patent No. 4,913,391 describes a gun rest which is adjustable
10 for elevation that consists of a U-shaped cradle affixed to the top of a shaft. The gun rest further comprises a bracket which may be attached to a fixed surface such as the railing of a tree stand, fence, porch or deck. While this gun rest is easily adjustable for elevation such that a sportsmen may maintain a standing posture it is impractical for use in the field because its bracket needs to be affixed to a surface.

United States Patent No. 4,575,964 describes a portable gun rest designed to
15 be have one end placed on a sportsman's thigh while the sportsman is in a kneeling position. The other end of the gun rest consists of a U-shaped cradle which holds the forearm of a firearm. Between the two ends the gun rest consists of two telescoping tubes. This gun rest is height adjustable and could theoretically be tall enough to allow the
20 sportsman to place one end on the ground and maintain a standing posture. Elevation adjustment is obtained by extending or collapsing the telescoping tubes and the desired adjustment is maintained by securing means such as a pin, which slips through a hole in the inner tube or through matching holes in each tube. Elevation adjustment is not quick or convenient and thus does not allow the sportsman to quickly adapt to changing hunting
25 situations.

United States Patent No. 4,393,614 describes a gun rest consisting of a telescoping tubular shaft with a U-shaped cradle attached to the top of the shaft. The height of the tubular shaft is adjustable by extending or collapsing the telescoping tubes and maintaining the height by securing means. This gun rest's U-shaped cradle is designed to
30 accept the barrel of a firearm. This gun rest is adjustable in height such that a sportsman may use whatever posture the terrain and comfort dictate but this gun rests suffers from not being quickly adjustable due to the telescoping nature of the shaft. Additionally, this gun rest would not be useful to a sportsman as the positioning of the U-shaped cradle on the barrel of the firearm would be detrimental to accuracy as the weight of the firearm would
35 cause the barrel to bend and thus change a fired bullet's point of impact.

Thus there exists a need for a compact, portable, lightweight gun rest that is quickly and simply adjusted over a wide range of heights such that a sportsman can take advantage of the most comfortable and convenient posture as dictated by the terrain or hunting situation.

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Summary of the Invention

The present invention relates to gun rests which are compact, lightweight and readily height adjustable. This ease of adjusting the height of the gun rest allows a sportsman to quickly adapt the rest to the body posture dictated by the terrain and situation.

- 10 A gun rest in accordance with the present invention comprises a plate. A first end section of the plate has an opening which is sized such that a shaft may be received therein. A second end section of the plate is bent or formed at an angle with respect to the plane formed by the first end section of the plate. The gun rest is used by inserting a shaft through the opening in the plate with the second end section directed upward. Any variety of shafts may be
- 15 employed such as, for example, walking/wading sticks, staffs, canes and tree limbs. Once the shaft is received in the opening, the sportsman may place the forearm of a firearm on the gun rest in the bend formed between the planes of the first end section and the second end section. The sportsman may then adjust the gun rest to a desired height. The weight of the firearm will serve to tightly hold the gun rest in position on the shaft thereby removing the
- 20 weight of the firearm from the sportsman as well as providing a steady base to improve accuracy.

- Preferably the opening in the first end section of the gun rest is generally circular on one end and tapers to a point on the other end, thereby improving the gripping ability of the gun rest on a shaft. According to embodiments of the present invention teeth
- 25 may be formed into the periphery of the opening. Teeth may be formed in the periphery of both the generally circular and tapered ends of the opening. Alternatively, or additionally, portions of the opening may be covered by flexible gripping aids, which also serve to silence the gun rests of the present invention.

- The gun rest may be constructed from any material displaying the necessary
- 30 rigidity to support the weight of a firearm. Materials such as, for example, steel, aluminum, other metallic materials, composite materials, polymeric materials, wood or glass may be used.

- Additionally, a retaining device may be attached to the gun rest so that it may be connected to the shaft if so desired. Such retaining means may take the form of a
- 35 small hole formed near the first end section of the gun rest through which a string or wire may be threaded. Additionally, a loop may be formed on the first end section of the gun

rest through which a string or wire may be threaded. These strings or wires may then be used to attach the gun rest to the shaft so that it is readily available when the sportsman needs to use the gun rest.

The gun rests be fitted into the receptacle of a mounting bracket, which may
5 either be used on a flat surface or attached to a surface by means of pressure plates and a tightener, to further stabilize the gun rest and thereby increase the accuracy of the sportsman.

Brief Description of the Drawings

10 Figure 1 is a side view of an embodiment of the gun rest of the present invention.

Figure 2 is a top view of the gun rest of Fig. 1.

Figure 3 is a top view of another embodiment of the present invention, which incorporates teeth.

15 Figure 4 is a top view of a different embodiment of the present invention, which incorporates flexible gripping aids.

Figure 5 is a side view of a further embodiment of the present invention, which incorporates a retaining device.

Figure 6 is a top view of the gun rest of Fig. 5.

20 Figure 7 is a side view of the gun rest of Fig. 1 mounted on a shaft.

Figure 8 is a side view of a user using an embodiment of the present invention on a shaft.

Figure 9 is a side view of an embodiment of the present invention on a shaft wherein the shaft has been fixed to a surface.

25 Figure 10 is a top view of yet another embodiment of the present invention.

Figure 11 is a top view of a still further embodiment of the present invention.

Detailed Description of the Invention

Figure 1 illustrates gun rest 10 according to one embodiment of the present
30 invention. Gun rest 10 comprises a plate 11 having a first end section 12, a second end section 13 and a intermediate section 14. Plate 11 between second end section 13 and intermediate section 14 is bent such that an angle 15 from about 30 to about 90 degrees is formed between the plane of the first end section 12 and the plane of the second end section 13. Angle 15 is designed such that the forearm of a firearm will easily and securely rest on
35 gun rest 10.

Figure 2 illustrates gun rest **10**. Gun rest **10** comprises a plate **11** having a first end section **12**, a second end section **13** and an intermediate section **14**. Plate **11** between second end section **13** and intermediate section **14** is bent such that an angle from about 30 to about 90 degrees is formed between the plane of the first end section **12** and the plane of the second end section **13**. Opening **16** is formed in first end section **12**. Opening **16** is configured in shape and size such that a shaft may be inserted into opening **16**. Opening **16** is illustrated as being generally tear-dropped in shape with the point of the tear-drop **17** being aligned towards first end section **12** and the round end **18** of the tear drop being aligned towards second end section **13**.

It is understood that opening **16** may be of any shape and size desired such that a shaft may inserted in to opening **16**. Additionally, it is understood that plate **11** may be constructed of any material displaying the necessary strength and rigidity to support the weight of a firearm such as, for example, steel, aluminum, other metallic materials, composite materials, polymeric materials, wood or glass.

Figure 3 illustrates gun rest **100**, another embodiment of the present invention. Gun rest **100** comprises a plate **111** having a first end section **112**, a second end section **113** and an intermediate section **114**. Plate **111** between second end section **113** and intermediate section **114** is bent such that an angle from about 30 to about 90 degrees is formed between the plane of the first end section **112** and the plane of the second end section **113**. Opening **116** is formed in first end section **112**. Opening **116** is configured in shape and size such that a shaft may be inserted into opening **116**. Opening **116** is illustrated as being generally tear-dropped in shape with the point of the tear-drop **117** being aligned towards first end section **112** and the round end **118** of the tear drop being aligned towards second end section **114**. Teeth **119** are located around the perimeter of opening **116** such that teeth **119** will aid in gripping a shaft inserted into opening **116**.

It is understood that opening **116** may be of any shape and size desired such that a shaft may inserted in to opening **116**. Additionally, it is understood that teeth **119** may be arranged around the perimeter of opening **116** in any configuration and size desired to improve the gripping of a shaft inserted into opening **116**. Finally, it is understood that plate **111** may be constructed of any material displaying the necessary strength and rigidity to support the weight of a firearm such as, for example, steel, aluminum, other metallic materials, composite materials, polymeric materials, wood or glass.

Figure 4 illustrates gun rest **200**, a further embodiment of the present invention. Gun rest **200** comprises a plate **211** having a first end section **212**, a second end section **213** and an intermediate section **214**. Plate **211** between second end section **213** and intermediate section **214** is bent such that an angle from about 30 to about 90 degrees is

formed between the plane of the first end section **212** and the plane of the second end section **213**. Opening **216** is formed in first end section **212**. Opening **216** is configured in shape and size such that a shaft may be inserted into opening **216**. Opening **216** is illustrated as being generally tear-dropped in shape with the point of the tear-drop **217** being aligned towards first end section **212** and the round end **218** of the tear drop being aligned towards second end section **214**. Flexible gripping aids **220**, which contain slits **221**, are located such that a portion of opening **216** is covered. Flexible gripping aids **220** will aid in gripping a shaft inserted into opening **216** as well as serving as a silencer between gun rest **200** and a shaft inserted into opening **216**.

It is understood that opening **216** may be of any shape and size desired such that a shaft may inserted in to opening **216**. Additionally, it is understood that flexible gripping aids **220**, which contain slits **221**, may be arranged around the perimeter of opening **216** in any configuration and size desired to improve the gripping of a shaft inserted into opening **216**. Further, flexible gripping aids **220** may be constructed of any suitable material. Preferred embodiments of the present invention exist when flexible gripping aids **220** are constructed of a plastic material. Finally, it is understood that plate **211** may be constructed of any material displaying the necessary strength and rigidity to support the weight of a firearm such as, for example, steel, aluminum, other metallic materials, composite materials, polymeric materials, wood or glass.

Figure 5 illustrates gun rest **300**, another embodiment of the present invention. Gun rest **300** comprises a plate **311** having a first end section **312**, a second end section **313** and a intermediate section **314**. Plate **311** between second end section **313** and intermediate section **314** is bent such that an angle **315** from about 30 to about 90 degrees is formed between the plane of the first end section **312** and the plane of the second end section **313**. Angle **315** is designed such that the forearm of a firearm will easily and securely rest on gun rest **300**. Retaining device **322**, which is designed to secure gun rest **300** to a shaft, is attached to second end section **313**. While retaining device **322** is illustrated as a loop through which a string or wire may be threaded, it is understood that retaining device **322** may take the form of any such device known in the art.

Figure 6 illustrates gun rest **300**. Gun rest **300** comprises a plate **311** having a first end section **312**, a second end section **313** and a intermediate section **314**. Plate **311** between second end section **313** and intermediate section **314** is bent such that an angle from about 30 to about 90 degrees is formed between the plane of the first end section **312** and the plane of the second end section **313**. Opening **316** is formed in first end section **312**. Opening **316** is configured in shape size such that a shaft may be inserted into opening **316**. Opening **316** is illustrated as being generally tear-dropped in shape with the point of

the tear-drop 317 being aligned towards first end section 312 and the round end 318 of the tear drop being aligned towards second end section 314. Retaining device 322 is positioned in second end section 313.

It is understood that opening 316 may be of any shape and size desired such that a shaft may inserted into opening 316. Further, while retaining device 322 is illustrated as an opening in plate 311 through which a string or wire may be threaded, it is understood that retaining device 322 may take the form of any such device known in the art. Finally, it is understood that plate 311 may be constructed of any material displaying the necessary strength and rigidity to support the weight of a firearm such as, for example, steel, aluminum, other metallic materials, composite materials, polymeric materials, wood or glass.

Figure 7 illustrates gun rest 10 slidably attached to a shaft 98. Gun rest 10 comprises a plate 11 having a first end section 12, a second end section 13 and a intermediate section 14. Plate 11 between second end section 13 and intermediate section 14 is bent such that an angle 15 from about 30 to about 90 degrees is formed between the plane of the first end section 12 and the plane of the second end section 13. Angle 15 is designed such that the forearm of a firearm will easily and securely rest on gun rest 10.

Figure 8 illustrates gun rest 10 slidably attached to a shaft 98 while supporting the weight of firearm 99 and thus improving the accuracy of a sportsman using gun rest 10. Second end section 13 and intermediate section 14 of gun rest 10 are visible in this figure. While the sportsman is illustrated using gun rest 10 in a kneeling position, it is understood that the rapid and easy adjustment of gun rest 10 on shaft 98 would allow the sportsman to assume the most comfortable and convenient posture dictated by the terrain or hunting situation.

Figure 9 illustrates gun rest 10 slidably attached to a shaft 98 wherein shaft 98 has been fixed to a surface 33. Gun rest 10 comprises a plate 11 having a first end section 12, a second end section 13 and a intermediate section 14. Plate 11 between second end section 13 and intermediate section 14 is bent such that an angle 15 from about 30 to about 90 degrees is formed between the plane of the first end section 12 and the plane of the second end section 13. Angle 15 is designed such that the forearm of a firearm will easily and securely rest on gun rest 10.

Shaft 98 is attached to surface 33 by the use of mounting bracket 23. Mounting bracket 23 comprises two pressure plates 24a and 24b, tightener 25 and receptacle 26. Pressure plates 24a and 24b are slipped over the end of surface 33 such as, for example, a tree stand or porch floor and are tightened against the surface by use of tightener 25. Receptacle 26 is permanently attached to pressure plate 24a and forms a

cylindrical cavity perpendicular to pressure plate **24a** such that shaft **98** can be inserted into the cylindrical cavity. Tightener **25** is illustrated as a bolt and nut but it is understood that tightener **25** may take the form of any device which can fasten to a surface.

Alternatively, pressure plate **24a** may be disconnected from pressure plate **24b** and tightener **25** and used as a flat surface for receptacle **26**, which may be used upon any surface not capable of fitting between pressure plates **24a** and **24b** such as, for example, the ground or the bed of a pick-up truck.

Figure 10 illustrates a top view of gun rest **400** an additional embodiment of the present invention. Gun rest **400** comprises a plate **411** having a first end section **412**, a second end section **413** and an intermediate section **414**. Plate **411** between second end section **413** and intermediate section **414** is bent such that an angle from about 30 to about 90 degrees is formed between the plane of the first end section **412** and the plane of the second end section **413**. Opening **416** is formed in first end section **412**. Opening **416** is configured in shape and size such that a shaft may be inserted into opening **416**. Opening **416** is illustrated as being generally tear-dropped in shape with the point of the tear-drop **417** being aligned towards first end section **412** and the round end **418** of the tear drop being aligned towards second end section **414**. Additionally, opening **416** is designed such that one side of the tear-drop extends to the edge of plate **411** such that a gun rest **400** may be slipped around a shaft as well as having a shaft inserted. Teeth **419** are located around the perimeter of opening **416** such that teeth **419** will aid in gripping a shaft inserted into opening **416**. Retaining device **422** is positioned in second end section **413**. While retaining device **422** is illustrated as an opening through which a string or wire may be threaded, it is understood that retaining device **422** may be any retaining device.

It is understood that opening **416** may be of any shape and size desired such that a shaft may be inserted into opening **416**. Additionally, it is understood that teeth **419** may be arranged around the perimeter of opening **416** in any configuration and size desired to improve the gripping of a shaft inserted into opening **416**. Finally, it is understood that plate **411** may be constructed of any material displaying the necessary strength and rigidity to support the weight of a firearm such as, for example, steel, aluminum, other metallic materials, composite materials, polymeric materials, wood or glass.

Figure 11 illustrates a top view of gun rest **500**, another embodiment of the present invention. Gun rest **500** comprises a plate **511** having a first end section **512**, a second end section **513** and an intermediate section **514**. Plate **511** between second end section **513** and intermediate section **514** is bent such that an angle from about 30 to about 90 degrees is formed between the plane of the first end section **512** and the plane of the second end section **513**. Opening **516** is formed in first end section **512**. Opening **516** is

configured in shape and size such that a shaft may be inserted into opening 516. Opening 516 is illustrated as being generally tear-dropped in shape with the point of the tear-drop 517 being aligned towards first end section 512 and the round end 518 of the tear drop being aligned towards second end section 514. Additionally, opening 516 is designed such that one side of the tear-drop extends to the edge of plate 511 such that a gun rest 500 may be slipped around a shaft as well as having a shaft inserted. Teeth 519 are located around the perimeter of opening 516 such that teeth 519 will aid in gripping a shaft inserted into opening 516. Retaining device 522 is positioned in plate 511 near second end section 513. While retaining device 522 is illustrated as an opening through which a string or wire may be threaded, it is understood that retaining device 522 may be any retaining device. Flexible gripping aid 520 is located such that a portion of opening 516 is covered. Flexible gripping aid 520 will aid in gripping a shaft inserted into opening 516 as well as serving as a silencer between gun rest 500 and a shaft inserted into opening 516.

It is understood that opening 516 may be of any shape and size desired such that a shaft may be inserted into opening 516. Additionally, it is understood that teeth 519 may be arranged around the perimeter of opening 516 in any configuration and size desired to improve the gripping of a shaft inserted into opening 516. Additionally, it is understood that flexible gripping aid 520 may be arranged around the perimeter of opening 516 in any configuration and size desired to improve the gripping of a shaft inserted into opening 516. Further, flexible gripping aid 520 may be constructed of any suitable material. Preferably flexible gripping aid 520 is constructed of a plastic material. Finally, it is understood that plate 511 may be constructed of any material displaying the necessary strength and rigidity to support the weight of a firearm such as, for example, steel, aluminum, other metallic materials, composite materials, polymeric materials, wood or glass.

Although the present invention has been described with particular reference to the above embodiments, it should be understood that many variations and modifications will be obvious to those skilled in the art, and it should, therefore be understood that the scope of the invention is not limited by or to the specific disclosure herein, but includes all subject matter encompassed by the following claims and all equivalents thereof.